

REMARKS:

Claims 1-20 are pending in the application.

The Office questioned the standing of U.S. Provisional Application Serial No. 60/481,225 as a priority document for the present application, as it appeared to be drawn to an infusion system rather than the present invention. Accordingly, the Office refused the benefit of the Provisional's filing date.

The Agent of Record has reviewed U.S. Provisional Application Serial No. 60/481,225 from both the in house file copies of the application and from the link provided in "Public PAIR" by the US Patent Office and found the specification and drawing figures of the Provisional Application in each to be substantially the same as the specification and drawing figures under examination.

Applicants believe, therefore, that the Office erred in this matter and respectfully request that the Office acknowledge that the present application indeed has benefit of the August 13, 2003 filing date of U.S. Provisional Patent Application serial No. 60/481,225.

The Office rejected claims 1-20 under 35 U.S.C. 103(a) as being unpatentable over Shawhan, US 4,298,970 in view of Laborde, US 6,816,082.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In *re* Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); M.P.E.P. § 2142. Moreover, all the claim limitations must be taught or suggested by the prior art. In *re* Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. In *re* Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); M.P.E.P. § 2143.03.

With respect to alleged obviousness, there must be something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561 (Fed. Cir. 1986). In fact, the absence of a suggestion to combine is dispositive in an obviousness determination. *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573 (Fed. Cir. 1997). The mere fact that the prior art can be combined or modified does not make the resultant combination obvious unless the prior art also suggests the desirability of the combination. In *re* Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

The consistent criterion for determining obviousness is whether the prior art would have suggested to one of ordinary skill in the art that the process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art. Both the suggestion and the expectation of success must be founded in the prior art, not in the Applicant's disclosure. In *re* Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); In *re* O'Farrell, 853 F.2d 894 (Fed. Cir. 1988); M.P.E.P. § 2142.

In the present invention, the claimed downhole network is integrated into a string of drill pipes. Each of the pipes has electrically coupled inductive coils at its respective ends and the pipes are connected end-to-end. They transmit information by electromagnetic data communication through the coils. Multiple nodes are dispersed among these pipes and timing of at least two of the nodes is synchronized.

Shawhan discloses acoustic data communications and Laborde discloses a wireline conveyed measuring system that meets the requirements of what Shawhan describes (in column 1 lines 53-55) as prior art (which his invention is clearly different from and implicitly an improvement over) that is drawn to "... after the fact measurement which requires significant interruption of the drilling process." Applicants believe that one skilled in the art would not be motivated to combine these two references as 'after the fact' measurements have quite different operational and physical requirements than taking the measurements while drilling.

In addition, neither reference discloses or describes a plurality of drill pipes, each pipe having electrically coupled inductive coils at their respective ends, the pipes being connected end-to-end and providing communications by passing electromagnetic data through the coils. This structure is shown clearly in figure 4 of the drawing figures and described in the corresponding section of the specification.

In order to clearly and distinctly point out these important structural and functional differences from the prior art, claim 1 has been amended now to state that the downhole network is integrated into a drill string comprising a plurality of drill pipes. Each of the pipes has electrically coupled inductive coils at its respective ends. The pipes are also connected end-to-end and pass data packets by electromagnetic data communication through the coils.

Applicants believe that claim 1, as amended, is now novel over the cited references and therefore respectfully request it be found allowable. In a similar manner, since claims 2-12 depend from allowable claim 1, Applicants respectfully request that these claims too be found allowable.

Claim 12 has been amended now in a manner similar to the amendments of claim 1.

Accordingly, Applicants further request that claim 12 and its dependent claims 13-20 be found allowable as well.

In view of the amendments made herein, which put pending claims 1-20 in condition for allowance, Applicants respectfully request that claims 1-20 of the application be allowed, and that a timely Notice of Allowance be issued in this case.

Please charge Deposit Account No. 180584 in the amount of \$120, the fee required under 37 CFR 1.17(a)(1) for a one month extension for time. It is believed that there are no other fees due at this time. However, the Commissioner is hereby authorized to charge any fees which may be required at any time during the prosecution of this application without specific authorization, or credit any overpayment, to Deposit Account 180584. If there are any questions concerning the above, please contact the undersigned at (281) 878-5658.

Respectfully submitted,

/Jeffery E. Daly/

Electronically signed by Jeffery E. Daly on 08/17/2006

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/Jeffery E. Daly/

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